

Contents Volume 161, 1999

Vol. 161, Nos. 1–3

Special Issue: Earth System Evolution: Geochemical Perspective

<i>Editorial</i>	1
<i>Geological Background</i>	
Paleogeography: an earth systems perspective G.M. Ross	5
Paleoceanography and paleoclimatology: an Earth system perspective C.R. Barnes	17
<i>Geological Evolution from Isotope Proxy Signals</i>	
The Sr, C and O isotopic evolution of Neoproterozoic seawater S.B. Jacobsen and A.J. Kaufman	37
$^{87}\text{Sr}/^{86}\text{Sr}$, $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ evolution of Phanerozoic seawater J. Veizer, D. Ala, K. Azmy, P. Bruckschen, D. Buhl, F. Bruhn, G.A.F. Carden, A. Diener, S. Ebner, Y. Godderis, T. Jasper, C. Korte, F. Pawellek, O.G. Podlaha and H. Strauss	59
Geological evolution from isotope proxy signals — sulfur H. Strauss	89
The abundance of ^{13}C in marine organic matter and isotopic fractionation in the global biogeochemical cycle of carbon during the past 800 Ma J.M. Hayes, H. Strauss and A.J. Kaufman	103
Isotope stratigraphy of the European Carboniferous: proxy signals for ocean chemistry, climate and tectonics P. Bruckschen, S. Oesmann and J. Veizer	127
Early Cenozoic glaciation, Antarctic weathering, and seawater $^{87}\text{Sr}/^{86}\text{Sr}$: is there a link? J.C. Zachos, B.N. Opdyke, T.M. Quinn, C.E. Jones and A.N. Halliday	165
<i>Model Interferences from Isotope Proxy Data</i>	
Interpreting carbon-isotope excursions: carbonates and organic matter L.R. Kump and M.A. Arthur	181
The role of basalt weathering in the Sr isotope budget of the oceans A.S. Taylor and A.C. Lasaga	199
Effects of diagenesis on the isotopic record of late Paleogene tropical sea surface temperatures D.P. Schrag	215
<i>Geological Time Series: Models and Prediction Capabilities</i>	
Trends, cycles and nonstationarities in isotope signals of Phanerozoic seawater A. Prokoph and J. Veizer	225
Nonlinear system analysis of a $^{87}\text{Sr}/^{86}\text{Sr}$ time series for Phanerozoic seawater O.G. Podlaha, A. Chalimourda and S. Albeverio	241
Time series analysis of geological data G. Cimino, G. Del Duce, L.K. Kadanaga, G. Rotundo, A. Sisani, G. Stabile, B. Tirozzi and M. Whitar	253
Stochastic and deterministic methods in the analysis of the $\delta^{18}\text{O}$ record in the core V28-239 H.-J. Giese, S. Albeverio and G. Stabile	271

Human Dimensions: Geological Lessons

Carbon and hydrogen isotope systematics of bacterial formation and oxidation of methane M.J. Whiticar	291
A 15,000-year stable isotope record from sediments of lake Steisslingen, southwest Germany B. Mayer and L. Schwark	315
Time series analyses of tree ring chronologies from Pacific North America: evidence for sub-century climate oscillations L.K. Kadonaga, O. Podlaha and M.J. Whiticar	339
Earth system science and the western worldview J.C.G. Walker	365

Vol. 161, No. 4**Special Issue: Geomicrobiology**

<i>Preface</i>	373
Experimental study of the effect of EDTA on Cd adsorption by <i>Bacillus subtilis</i> : a test of the chemical equilibrium approach J.B. Fein and D. Delea	375
Biomechanical and biochemical weathering of lichen-encrusted granite: textural controls on organic-mineral interactions and deposition of silica-rich layers M.R. Lee and I. Parsons	385
Bacterial clay authigenesis: a common biogeochemical process K.O. Konhauser and M.M. Urrutia	399
Transient redox regimes in a shallow alluvial aquifer A.R. Groffman and L.J. Crossey	415
<i>Contents Volume 161, 1999</i>	443

